

Remarks

Applicant has included a Petition for Extension of Time for one month with the appropriate fee.

Oath/Declaration

Applicant includes herewith a new declaration corrected as indicated by the Examiner.

Drawings

The reference number "28" shown in the drawings was not mentioned in the specification. Accordingly, as per the specification amendments listed hereinbefore, Applicant has amended the specification by adding the reference number "28" to the specification in the replacement paragraph on page 15, beginning at line 4 at the appropriate place in the discussion of Figure 11A. It is respectfully submitted that the amendment to the specification to add the reference number obviates the need to remove the number from the drawings.

Specification

Applicant has amended the Abstract and the disclosure by making the changes suggested by the Examiner.

Claim Rejections - 35 USC § 112

Claims 13-20 are rejected under 35 U.S.C. 112 due to lack of antecedent basis. Applicant has accordingly amended the claims as indicated by the Examiner to obviate the rejection.

Claim Rejections - 35 USC § 102

Claims 1, 3-8, 11-16, and 18-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Persson et al. (US 2,756,311). Applicant respectfully submits that the amendments traverse the rejection.

Applicant has amended claims 1, 6, and 13 to clarify that the initial bead is formed only using metal from the work piece itself. Hence, no additional metal is added. Accordingly, the first welding machine does not utilize feedstock, as does Persson (See for example item 20 of Fig. 1). Therefore Applicant's welding machine is unlike that of Persson and does not produce a similar type of weld, e.g. Persson does not produce a keyhole type of weld. Moreover, because Persson adds considerable metal to the weld, it is necessary for the two Persson welding machines to be closely adjacent to each other to prevent cooling of the initial weld which would otherwise adversely affect operation of the Persson system (See Col 4, line 41 through Col 5, lines 21). Note also that claims 3, 7, 8, and 16 now specify electronically monitoring of the results from the second or conditioned weld. This feature is also not shown by Persson.

Establishing anticipation under 35 U.S.C. §102(b) requires that a single prior art reference contain every element recited in the claim in as complete detail as is contained in the claim. "The identical invention must be shown in as complete detail as is contained in the claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir 1989) See also M.P.E.P. (Manual of Patent Examining Procedure) § 2131. Further, "[A]nticipation requires that ... the prior art reference must be enabling, thus placing the alleged disclosed matter in the possession of the public." *Akzo n.v. v U.S. Int'l Trade Commission*, 808 F.2d 1471, 1 USPQ 2d 1241, 1245 (Fed. Cir. 1986) (citing *In re Brown*, 329 F.2d 1006, 1011, 141 USPQ 245, 249 (C.C.P.A. 1964). "There must be no difference between the claimed invention and the reference disclosure..." *Scripps Clinic & Research Foundation v. Genetech Inc.*, 927 F.2d 1565, 18 USPQ 2d 1001, 1010 (Fed Cir. 1991).

Clearly, Persson does not show Applicant's invention in as complete detail as contained in the amended claims.

Claims 13-16, 19, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Shimada et al. (JP 55-73479). Applicant respectfully submits that the amendments traverse the rejection.

Shimada utilizes a MIG welder as the first welding machine thereby requiring continuously adding filler metal to the weld. Applicant has amended claim 13 to clarify that the initial bead is formed only using metal from the work piece itself. No additional metal is added.

Establishing anticipation under 35 U.S.C. §102(b) requires that a single prior art reference contain every element recited in the claim in as complete detail as is contained in the claim.

"The identical invention must be shown in as complete detail as is contained in the claim."

Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir 1989)

See also M.P.E.P. (Manual of Patent Examining Procedure) § 2131. Further, "[A]nticipation requires that ... the prior art reference must be enabling, thus placing the alleged disclosed matter in the possession of the public." *Akzo n.v. v U.S. Int'l Trade Commission*, 808 F.2d 1471, 1 USPQ 2d 1241, 1245 (Fed. Cir. 1986) (citing *In re Brown*, 329 F.2d 1006, 1011, 141 USPQ 245, 249 (C.C.P.A. 1964). "There must be no difference between the claimed invention and the reference disclosure..." *Scripps Clinic & Research Foundation v. Genetech Inc.*, 927 F.2d 1565, 18 USPQ 2d 1001, 1010 (Fed Cir. 1991).

Clearly, Shimada does not show Applicant's invention in as complete detail as contained in the amended claims.

Claim Rejections - 35 USC § 103

Claims 2, 9, 10 and 17 are rejected under 35 U.S.C. 103 as being anticipated by Persson et al. (US 2,756,311) in view of Beyer et al. (US 5,821,493). Applicant respectfully

submits that the amendments traverse the rejection.

In order for Beyer to operate, it is necessary that Beyer's laser vaporize the metal of the work piece to produce a plasma, i.e., ionized material and gas or vapor form (Col. 5, 7-19). In Beyer, the ionized plasma ignites and guides the TIG arc. (see for instance, Col. 3, lines 57-65). Accordingly, the laser and TIG welder must be very close together and cannot be sufficiently separated so that the weld bead is permitted to solidify as claimed. As noted previously, Persson also teaches that closeness between the first and second machines is essential. Accordingly, there would be no motivation to combine Beyer with Persson unless the laser and TIG welder were not actually almost adjacent or on top of each other, which is contrary to Applicant's claim language. Accordingly, even in combination, Persson and Beyer do not teach all elements of the base claims whereby sufficient distance is required between the first and second machines to permit the bead to solidify.

In order to establish a prima facie case under 35 U.S.C. 103(a) all the claim limitations must be taught or suggested by the prior art. The showing must be clear and particular. See, e.g., *C.R. Bard*, 157 F.3d at 1352, 48 USPQ2s at 1232. See M.P.E.P. 2143.03.

Because all claim limitations are not taught, the rejection is respectfully traversed.

Claims 17 is rejected under 35 U.S.C. 103 as being anticipated by Shimada et al. (JP 55-73479) in view of Beyer et al. (US 5, 821,493). Applicant respectfully submits that the amendments traverse the rejection.

As noted above, in order for Beyer to operate, the ionized plasma ignites and guides the TIG arc so as to require the first and second welding machines to be closely adjacent, if not practically on top of each other. Accordingly, there would be no motivation to combine Beyer with Persson unless the laser and TIG welder were not actually almost on top of each other, which is contrary to Applicant's claim language.

It is also not clear that if the Beyer laser were used, that it would not necessarily produce a bead that extends radially outwardly from the surface from the work piece as required per base claim 13. Instead, as shown in Beyer, the laser simply vaporizes and melts the material and may actually produce a bead that is positioned radially inwardly from the surface due to the melt and the ionization. Finally, because Shimada uses a different type of welding machine that produces a different type of weld without adding material, it is not obvious without testing that the two could be usefully combined.

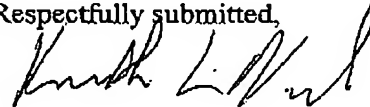
In order to establish a prima facie case under 35 U.S.C. 103(a) all the claim limitations must be taught or suggested by the prior art. The showing must be clear and particular. See, e.g., *C.R. Bard*, 157 F.3d at 1352, 48 USPQ2s at 1232. See M.P.E.P. 2143.03.

Because all claim limitations are not taught, the rejection is respectfully traversed.

Summary

Applicant submits that the amendments and comments provided above place the application in condition for allowance.

Respectfully submitted,

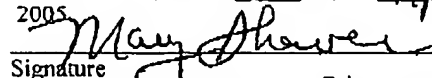


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